

Spotlight API Documentation

A documentation for customer friendly API

Introduction

This documentation describes two different ways to display data from Spotlight on companies' web pages. This document also shows the how to authenticate to have access to the Spotlight API to be able to fetch data.

Graph and IR Web URL or addresses have two different ways display data. The different addresses are ways to implement a customer friendly view generated by multiple API calls into a IFrame solution, it can be placed anywhere on the customer web site. The IFrame solution does not need authentication from the company.

Choose the Right Path

The API is divided into three webs that you can call with a customer API key. Depending on what the company is looking for, the company can use any of these 3 URLs:

- <https://api.spotlightstockmarket.com>
- <https://graph.spotlightstockmarket.com>
- <https://ir.spotlightstockmarket.com>

Get Started with api.spotlightstockmarket.com

*The first step is to gain an "access token". This token is to gain permission to retrieve information from the endpoint <https://api.spotlightstockmarket.com>. The two other endpoints can be implemented immediately on to the customer solution or web page without a token. The API-token can be reused until it expires after **60 minutes**. The expiration time of the token will be displayed in the response of the API.*

Authentication

Each client that is granted permission to use the Spotlight Web API will receive a personal "client id" and "client secret" to their email address. These are called keys and will be used to gain the access token. The first step is to make an http POST-request to Microsoft's authentication service. The keys that will be used to gain the access token are:

- ClientID
- Client Secret
- Resource
- Grant Type

A recommendation is to use the application "Postman" to call the API.

Download the app here: <https://www.getpostman.com/apps>.

Documentation of how to use postman in depth: <https://docs.api.getpostman.com/>

Gain the Access Token

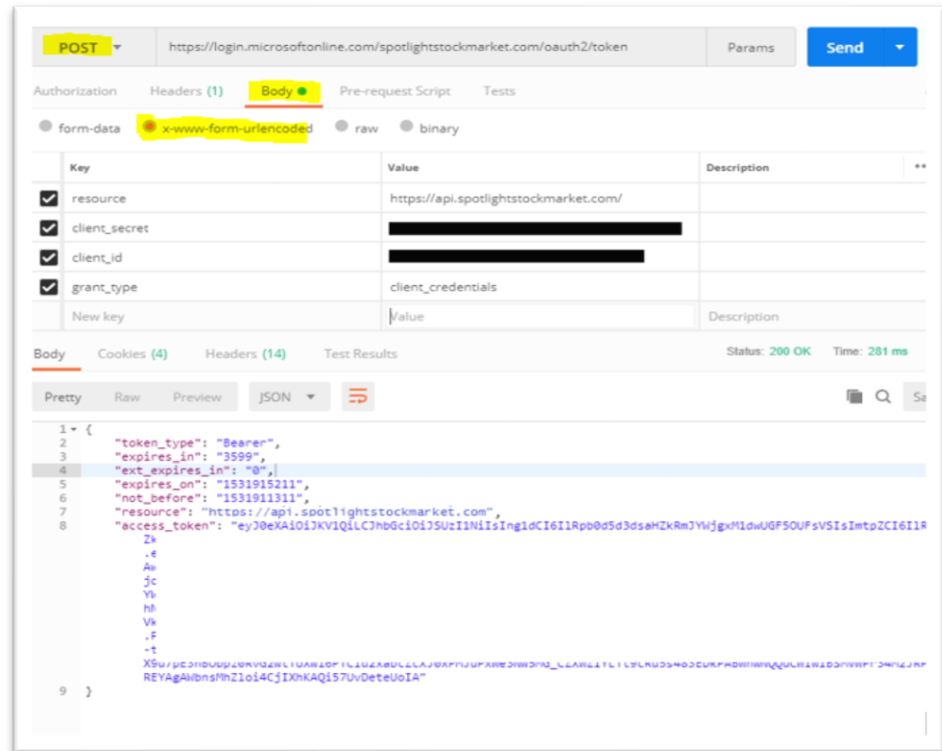
Build the request:

- Make sure you select **POST**
- Copy and paste the address below into the **input field**:
<https://login.microsoftonline.com/spotlightstockmarket.com/oauth2/token>
- **Set parameters**
 - Select the upper tab **Body** (below the top address field)
 - Select radio button “x-www-form-urlencoded”
 - Input the values into separate “Keys” by adding a new Key.
 - 1st Key. resource to the Key column. The URL you want to call in this case: <https://api.spotlightstockmarket.com> to the Value column.
 - 2nd. **Client id** to the left. The Client Id sent to client’s email to the right
 - 3rd. **Client secret** to the left. The Client Secret is sent to client’s email to the right
 - 4th. **Grant type** to the left. Client credentials to the right.
- Hit the **Send** button.
- The response will be shown in the bottom **text area** within the lower **Body** tab
- In the section of “access token” - Copy the right-hand side long character combination, within the quotation marks and save it for later.

```
"access_token": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiIsIngldCI6IjE5OTUyNiwiYWVlIjoibDZ1EaDdidDFDUjRFTUNiS0NBNDNLUHRXSEFRP14NzQ4Zjd1MCIjvaWQiOiIjXNGJhNWFiMy1hMzFhLTQ5MTktOWR1My02Mj1MCIjInV0aSI6IktPvNrtbjZXV1VpQm5hVEEyaE5vQUEiLCJ2ZXIiOiIjLW59CAKPKDba6KexYsG9fAcL8HR8Iap1VxA8eSGpR8uNdXGNAGqK05rhU83-ug6z3buBU_jkfMSRxdYPKF0s901jVXPvUDL1r621biLCLRg8Xh-s2KQm"
```



This token should be in the **Authentication header** in the **Headers** section of all the future http **GET**-requests to the Spotlight Web API to be able to fetch the data. If the **Status Code** returns to **200** it is done correctly. The flow below demonstrates the program Postman used to retrieve the access token.



Warning

Make sure that the application Fiddler (<https://www.telerik.com/fiddler>) is not running when doing the steps below. That will interfere with Postman. If you don't know what Fiddler is, do not worry, you are probably not running it.

Second step – retrieve data using the authentication token

The general principle for an approved API call to the endpoint `api.spotlightstockmarket.com` is that you have to send the access token, the base URL `http://api.spotlightstockmarket.com/` with the current version `v1.0/` along with the relative path of the URL including Quotes, Circuit Breaker, Trade, Summarized Trades.

Example:

<http://api.spotlightstockmarket.com/v1.0/quotes> + Access token

<http://api.spotlightstockmarket.com/v1.0/trade> + Access token

Using API with parameters

Demonstration using Postman

- Change the **POST** to **GET**
- Change the address to <http://api.spotlightstockmarket.com/v1.0/summarizedtrades>. This will return information about the **all trades for an instrument**.
- Add a new **Key** by clicking the upper Param tab and add a new **Key**. Add a key called **OrderBookId** and put the order book id for the instrument in the upper Key section.
- Click Headers-tab (below the address field).
- Type Authorization in the Key section. Add "Bearer" blank space {your access token} in the same row.
- Hit Send

The result will now show all summarized trades for an instrument, from when the request was sent.

The screenshot displays the Postman interface for a GET request. The URL is `https://api.spotlightstockmarket.com/v1.0/summarizedtrades?orderbookid=854`. The Headers tab is active, showing a Bearer token: `Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9IiwiaWF0IjoiMTYxMzUyMzI3LnkifQ.` The Body tab shows the JSON response, which is a list of trade records.

```

5   {"CloseHighPrice": 112,
6   "CloseLowPrice": 108.4,
7   "CloseQuantity": 153955,
8   "CloseTurnOver": 1698066,
9   "TradeDate": "2018-10-24T09:00:00",
10  "Reference": null,
11  "Date": null,
12  "Time": null
13  },
14  {
15  "NumTrades": 427,
16  "ClosePrice": 112,
17  "CloseHighPrice": 116.4,
18  "CloseLowPrice": 108.4,
19  "CloseQuantity": 38399,
20  "CloseTurnOver": 428644,
21  "TradeDate": "2018-10-23T09:00:00",
22  "Reference": null,
23  "Date": null,
24  "Time": null
25  },
26  {
27  "NumTrades": 188,
28  "ClosePrice": 117,
29  "CloseHighPrice": 120,
30  "CloseLowPrice": 116.4,
31  "CloseQuantity": 30714,
32  "CloseTurnOver": 4548679.6,
33  "TradeDate": "2018-10-22T09:00:00",
34  "Reference": null,
35  "Date": null,
36  "Time": null
37  },
38  {
39  "NumTrades": 276,
40  "ClosePrice": 116.4,

```



The Full API Documentation

The full API documentation for api.spotlightstockmarket.com can be found on: <https://api.spotlightstockmarket.com/swagger>

This is the part of swagger documentation that describes most traded (<https://api.spotlightstockmarket.com/v1.0/summarizedtrades>). You can see that it is a Http GET-method and that has the relative path "/summarizedtrades" (case-insensitive). A Parameter called OrderBookId is where the instrument order book id is set.

Note that you cannot use the "try it out"-button, because this is a protected api. (you can of course use Postman as in the authentication flow above)

SummarizedTrades Show/Hide List Operations Expand Operations

GET /SummarizedTrades

Response Class (Status 200)
OK

Model | Model Schema

```
[
  {
    "NumTrades": 0,
    "ClosePrice": 0,
    "CloseDayHighPrice": 0,
    "CloseDayLowPrice": 0,
    "CloseQuantity": 0,
    "CloseTurnOver": 0,
    "TradeDate": "2018-09-14T11:12:00.177Z",
    "Reference": 0,
    "OrderBookID": "SE0006091476"
  }
]
```

Response Content Type

Parameters

Parameter	Value	Description	Parameter Type	Data Type
OrderBookID	<input type="text" value="(required)"/>		query	string

Another example below, a method that takes a parameter. You can see the name (isin), required datatype (string) and how to pass the parameter (query string).

Quotes Show/Hide List Operations Expand Operations

GET /Quotes/GetQuoteByIsin

Response Class (Status 200)
OK

Model | Model Schema

```
{
  "MarketMaker": "string",
  "TradeState": 0,
  "DifferentialPreviousDay": 0,
  "BidPrice": 0,
  "AskPrice": 0,
  "LastPrice": 0,
  "DayHighPrice": 0,
  "DayLowPrice": 0,
  "Quantity": 0,
  "TurnOver": 0
}
```

Response Content Type

Parameters

Parameter	Value	Description	Parameter Type	Data Type
isin	<input type="text" value="(required)"/>		query	string

A correct call to get stock quote for the instrument with isin "SE0006091476" would look like: <https://api.spotlightstockmarket.com/v1.0/quotes/getquotebyisin?isin=SE0006091476>.

Please note that you cannot test this in the Swagger UI (by clicking "Try it out", nor directly in a web browser without an access token (see Authentication flow above).

Graph and IR API

The Graph and IR API is essentially a package of API combined into one web page view. This can be used in a section in a company solution, web page etc. it is called IFrame. The IFrame solution will run from Spotlight's server and the customer cannot manipulate the data inside the IFrame (unless cross-origin policy is added https://en.wikipedia.org/wiki/Cross-origin_resource_sharing).

Access the endpoints

Graph API

For Graph API you only need the base URL <https://graph.spotlightstockmarket.com/>.

Choose the node language English, Swedish or Danish (not yet finished).

Swedish: "sv", English: "en", Danish: "dk".

Add the relative URL for that node

Swedish: "bolag", English: "companies" Danish "" (in progress).

Add the rest of the relative URL "/irabout".

Lastly add the Parameter to the instrument. "?InstrumentId={your instrument id here}"

Final URL for the graph API should look similar to:

<https://graph.spotlightstockmarket.com/sv/bolag/irabout?InstrumentId=XSAT01000315>

or

<https://graph.spotlightstockmarket.com/en/companies/irabout?InstrumentId=XSAT01000573>

IR API

For the IR API you need the **base URL** <https://ir.spotlightstockmarket.com/>.

- Choose the node language English, Swedish or Danish (not yet finished).
Swedish: **"sv"**, English: **"en"**, Danish: **"dk"**.
- Add the relative URL for that node
Swedish: **"bolag"**, English: **"companies"** Danish **"** (tbd).
- Add the rest of the relative URL **"/irabout"**, **"/irtrade"** or **"/ircontact"**

Lastly add the Parameter to the instrument. **"?InstrumentId={your instrument id here}"**

Final URL should look similar to:

<https://ir.spotlightstockmarket.com/sv/bolag/irabout?InstrumentId=XSAT01000315>

or:

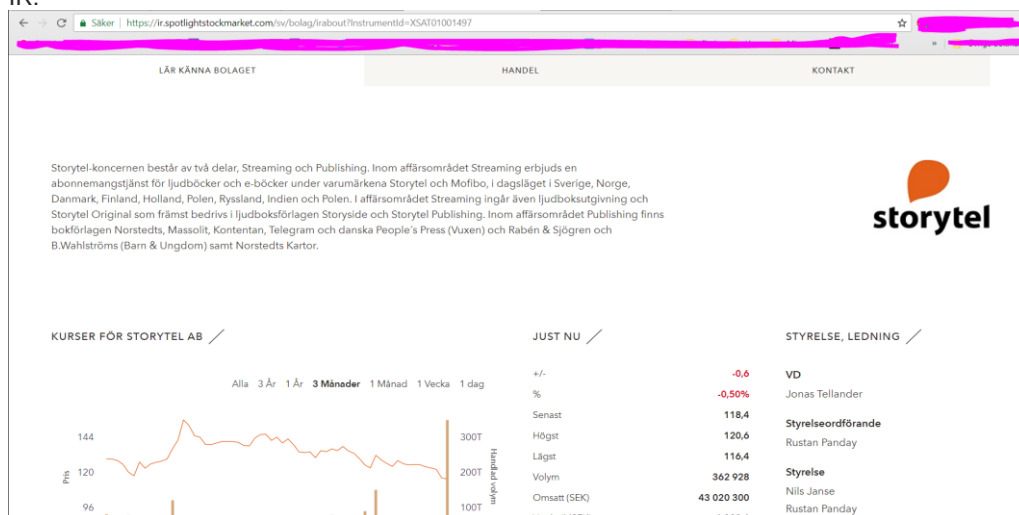
<https://ir.spotlightstockmarket.com/en/companies/irtrade?InstrumentId=XSAT01000573>

For graphical illustration see pictures below.

Graph:



IR:



Libraries and sample projects

If you are a .NET Developer, please see the NuGet-package
“Microsoft.IdentityModel.Clients.ActiveDirectory”

For .NET-developers, please see the code samples on:

<https://docs.microsoft.com/en-us/azure/active-directory/develop/active-directory-code-samples#web-applications-signing-in-users-calling-microsoft-graph-or-a-web-api-with-the-users-identity>

You can find it under “Daemon applications”, “ASP.NET Web App”